



BY SYLVIA G. LEWIS AND KELLY BATTS

**Q** “How can I possibly meet the needs of individual students when those needs are so diverse, and I have daily time constraints and a multitude of other responsibilities?” teachers ask.

North Topsail Elementary School, a Title I School in Pender County, N.C., began to help teachers answer that question by developing a differentiated instruction program. In 1998, administrators found that the majority of teachers used only whole-group instruction and taught to the average student, despite the diversity of the student population. Few teachers used assessments to determine how and what to teach.

When test scores showed the school did not meet the state’s accountability requirements for expected growth in reading and math

in grades three through five, the school’s leadership began working with staff in a variety of professional learning experiences aimed at improving student achievement. At that time, students had an overall 79% proficiency on state end-of-grade tests under the ABCs of Public Education

accountability program. Five years after beginning the process of differentiation, in 2003-04, 94.8% of students scored at the proficiency level.

North Topsail began its change with staff focusing on the principles of Accelerated Schools, including differentiation. Teachers reflected, devel-

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oped a vision, and set priorities for improvement. Through a consensus process, the staff decided to differentiate and adopted Carol Ann Tomlinson's definition of differentiation: the practice of adjusting the curriculum, teaching strategies, and classroom environment to meet the needs of all students (Tomlinson, 2001). Adjusting the curriculum does not mean changing the curriculum. It means educators:

- **Adjust the content** (what is being taught);
- **Adjust the process** (thinking and activities teachers do with the students); and
- **Adjust the product** when teaching the curriculum (what the end results are that show the student has mastered what has been taught).

In 5th grade, for example, students studied conflict as a theme. The teacher chose different novels for students at different readiness levels, yet all the novels shared the theme and contained examples of conflict. Students had a brief overview of each book and then chose which novel to read. The teacher reviewed the choices and found nearly every student had selected the book on his or her reading level. Students then completed a number of assignments from a list of activities that varied in difficulty by level.

Third-grade teachers color code a chart of student groups according to their mastery of reading comprehension strategies. Depending on the coding, some students are set to work independently, one group works with a parent volunteer, and the teacher supervises another group.

A 3rd-grade science teacher evaluates understanding of plant growth and adaptation by allowing each student to select four activities from a set of 12 biology projects. Some students create their own plant; others write a study guide or directions for an

#### North Topsail Elementary School Hampstead, N.C.

**Grades:** K-5  
**Enrollment:** 652  
**Staff:** 32

**Racial/ethnic mix:**  
**White:** 88 %  
**Black:** 12 %  
**Hispanic:** <1%  
**Asian/Pacific Islander:** 0%  
**Native American:** 0%  
**Other:** 0%

**Limited English proficient:** 0.92%

**Languages spoken:** English

**Free/reduced lunch:** 42%

**Special education:** 12.4%

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experiment, while another designs a game. Students receive points for completion, accuracy, neatness, staying on task, and presentation.

#### IMPLEMENTING DIFFERENTIATED INSTRUCTION

North Topsail administrators did not order teachers to adopt differentiated instruction. Knowing that leadership in curriculum was their responsibility as administrators, they provided ongoing staff development, suggested instructional videos, assigned readings, observed colleagues' successes, and highlighted the consequent rise in student achievement.

The change began with staff development led by the assistant principal around Accelerated Schools principles. Teachers developed a vision and set priorities for the school year. End-of-grade results on the assessments, however, still did not meet expectations.

In 1999, the school became a part of North Carolina's Partnership for High-Performing Schools (Total Quality Schools) and received a grant

for a two-day, midsummer retreat. All stakeholders in the school, including certified and noncertified staff, were paid to attend. In addition, members of the school advisory board for the school, PTA executive board, and some district administrators attended. At the retreat, a consultant led sessions focused on reviewing test data, building teams, reflecting on the school's vision, and developing a formal process for setting priorities for student achievement.

The following fall, the staff developed a professional learning plan for the year, and teachers began the process of differentiating and using flexible grouping. In addition, that year North Topsail became a partnership school with the University of North Carolina at Wilmington. The university provided ongoing staff development before school opened and throughout the year during regular professional development days at the school on integrating technology, lesson planning, delivery, and in developing a

**Adjusting the curriculum does not mean changing the curriculum.**

reflective practice. Another grant in 2000 from the state department of education allowed for additional learning focused on K-2 literacy. All teachers attended district sessions offered by the Southeast Educational Alliance during professional development days to learn how to set up differentiated learning centers, how to use leveled books, and more about guided reading, phonovisual and other aspects of a balanced literacy program.

#### PURSuing CHANGE

Staff now had been introduced to the ideas of differentiation. It was time for more formal learning. The administration gave all staff members written expectations for differentiating instruction. An educational consultant was brought in to provide formal training on differentiated instruction.

## EXAMPLES OF DIFFERENTIATED INSTRUCTION

North Topsail teachers use differentiated instruction through:

### Flexible grouping

Teachers group students based on readiness, interests, or learning styles, and plan lessons designed to match these students' attributes. Depending on the purpose of the lesson, flexible grouping provides students with opportunities to work with others with similar readiness and interest, or with dissimilar students. Flexible grouping can be used within a self-contained classroom, within the grade level, or across grade levels. Students also can be grouped at random within a particular class session.

The most important aspect of flexible grouping is that groups are not static. Some teachers mistakenly group students according to their abilities at the beginning of the school year and leave the same group in

place throughout the year, although some students may master the skills needed to move to a higher level. Teachers must continuously conduct formal and informal assessment and move students among the groups as often as necessary.

### Learning centers

Centers are stations with a collection of materials that learners use to explore topics or practice skills and can be used at all grade levels. Teachers may design centers for different subject areas and have small groups rotate from center to center, to several centers on the same subject but with different levels of complexity, or have a center for students who have completed an assigned task to use while other students in the class receive instruction.

### Independent contracts

Independent or learning contracts are agreements between a student and teacher that serve as a guide for

what the student needs to learn, process, and do. The contract often gives students choices regarding learning activities, but it also can be completely teacher-directed. Teacher, student, and often parents, sign the contract. Students may work in pairs or independently.

These contracts can be used as an assessment tool to see what learning modality students choose and their interests. The independent contract teaches self-responsibility and helps to foster research and critical thinking skills in students.

### Adjusting questions

Teachers adjust questions in class quizzes, tests, and homework based on particular students' readiness, interests, and learning profile. Teachers vary questions from a basic understanding to more advanced levels for individual students. Many teachers use Bloom's Taxonomy to

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tion techniques and to observe classroom instruction. The consultant returned regularly to coach and to provide feedback to teachers.

In the beginning, most teachers were reluctant to change their teaching practices and were unsure how to organize their day around multiple activities. During workshops and seminars, their faces and voices reflected the frustration about the new expectations. The biggest barrier seemed to be planning time. In the first couple of years, teachers began to stay after school, work over the summer in planning groups, and share with each other to develop their differentiated lessons.

From the end of the school year 2001-02 to present, North Topsail teachers continually worked to update

their professional knowledge on all aspects of differentiated instruction, both during their workdays and during the district's 19 allocated professional development days.

The assistant principal continued to provide additional internal training on differentiated instruction and demonstrated differentiated lessons in the classroom.

The district's directors of language arts and mathematics also provided training.

The principal assigned teachers books and other articles to read about differentiated instruction. The principal and assistant principal led discussions groups about the readings.

Grade-level teams discussed specific book chapters on their agendas during school hours and after school.

The Title I facilitator conducted study groups during professional development days throughout the year on best practices for reading. The study groups met four times one year and had additional readings assigned.

Twice a month, faculty meetings were devoted to differentiation. Teachers in the school who were using differentiation strategies shared ideas and successes. For example, one novice 3rd-grade teacher used centers in which she color coded the group activities by level of difficulty. She shared the idea at a faculty meeting. Another veteran 1st-grade teacher shared her strategy for tiered activities in math. These teachers also discussed barriers to using differentiated practices. Many teachers repeated that they had too little time to plan and

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develop questions. This schema was developed by Benjamin S. Bloom to provide insights into how students learn to think and to help educators understand the different aspects of learning. The ordering is developmental, building from the simple to the more complex. By using these categories, teachers can design more effective and comprehensive curriculum and assessments for students at various levels of cognitive development.

**Thematic units**

Teachers use units that incorporate information from various disciplines integrated into a broad-based theme. Thematic units allow students to connect learning to the real world and see links among disciplines.

**Compacting**

Teachers modify or streamline the regular curriculum so that students do

not have to repeat previously mastered material and are allowed to work on more challenging activities. Teachers assess students' level of mastery for a particular skill or subject, plan lessons accordingly, and plan alternative assignments for students who already have mastered the content. This strategy provides for enrichment activities, learning centers, or independent study/contracts for those students who have mastered the basic skills.

Accurate records are important when compacting. The records provide accountability and a rationale for students' working on alternative assignments.

**Independent study**

Students who have mastered content and have a special interest may contract with the teacher for a self-directed project. Independent study can be designed for both the individual student and for small groups of students. Independent study can be

an extension of the subject based on student interest or can be teacher-directed, but teacher feedback indicates that independent study is more effective when students are able to choose what the study will be.

**Tiered assignments**

Tiered assignments are assignments designed at different levels of complexity according to students' readiness levels. Assessments, both formal and informal, determine what level of understanding the students have of the subject matter. Tiered assignments are especially important for accountability related to grade promotion standards and state-mandated tests. The assignments also meet the needs of at-risk students.

Since most teachers are under time constraints, teachers work together in teams to plan activities for a particular subject. Activities can be designed for small groups as well as individual students.

develop tiered activities. The teachers who presented usually commented that while the planning was time-consuming, they now could use the activities for many years. And as teachers witnessed colleagues' successes, they began to develop a system of sharing. One teacher would plan several activities and share them with team members. The system was contagious, and soon teachers were planning differentiated lessons with and for each other, resulting in a greater number of usable activities.

Five teachers from different grade levels attended one- and two-week summer workshops in gifted education and differentiation, paid for by additional Title I and grant money. These teachers shared what they had learned with the whole faculty,

including handouts and activities they received in their training. All teachers had opportunities to attend regional workshops on specific strategies for the disciplines such as reading, math, writing, social studies, and math.

Small groups watched a professional development video and discussed the practicality of the differentiated practices shown for working in their own classrooms.

The school purchased books, articles, videos, and supplementary materials using Title I funds, grants, and general budget allowances from the county, along with PTA funds. These materials were added to the school library, and when teachers had questions about specific techniques, practices, and other issues, they referred to these resources for clarification.

It wasn't long before our central office staff began to notice the changes in teaching practices and subsequent student progress in the school. The district began to fund some teachers' time away to present at staff development and conferences. This was a major boost in the confidence of the teachers who were using differentiated instruction. And all of the teachers in the school were excited about the attention that North Topsail was beginning to receive.

In turn, more teachers were motivated to research the topic and to try more lessons on their own. The principal and assistant principal heard from teachers almost daily who had found a new book or web site on the topic of differentiated instruction. More teachers were putting these



practices in their lesson plans and choosing to attend staff development on the topic. Each of North Topsail's teachers now embraces differentiation in some form.

### ASSESSMENT IS KEY

Ongoing research related to assessment now drives teachers' lesson planning. At the beginning of each school year, along with their class list, teachers receive blank charts on which they record students' state and local assessment results on reading, writing, and math, as well as report card grades. Teachers document students' pretest and other scores to determine expected growth for that child in reading, writing, and math. The charts are turned in to the administration to review after each grading period. The principal and assistant principal, along with teachers, analyze the data from the state's end-of-grade assessments for 3rd through 5th grades, as well as data from local assessments the district requires. All teachers are required to keep these charts and to track students' progress each grading period on a variety of assessments.

These assessments are what differentiated instruction is all about. Students are identified as at-risk if they are below grade level, and teachers

**Students identified as having exceptional needs are showing the greatest growth.**

develop intervention plans to improve achievement. In addition, the teachers plan more challenging activities for students assessed as above grade level or those who have mastered a concept. For example, students who have mastered a concept may choose to do an independent project or choose a novel from a higher reading level with alternative assignments. Teachers then plan tiered assignments for students based on their readiness.

### SUCCESS AT LAST

Since North Topsail adopted the

### GUIDING PRINCIPLES

North Topsail focuses on these guiding principles of differentiated instruction:

- 1. Ongoing assessment.** Continuous assessment, both formal and informal, is crucial because it determines the impact of differentiated instruction and so drives the lessons and activities. Ongoing assessment also ensures that lesson content is in accordance with a student's readiness level and has not already been mastered. Informal assessments can be done through surveys, interactions, and observations and provide an opportunity for teachers to discover students' learning modalities.
- 2. Multiple teaching strategies.** Teachers must use a variety of teaching strategies to target instruction to meet student needs. Some of the strategies recommended by Carol Ann Tomlinson are: flexible grouping, compacting, tiered assignments, independent study/contracts, learning centers, interest centers, interest groups, adjusting questions, and mentors.
- 3. Varying group configurations.** Teachers should configure their classrooms according to the needs of the lesson, for example: whole group, small groups, pairs, or independent work.
- 4. Emphasis on student strengths.** When teachers provide a variety of product choices to meet the lesson goals, students can focus on their individual strengths.
- 5. Recognition of learning modalities.** Students have different learning modalities, so teachers practicing differentiated instruction must provide opportunities for varied learning styles.
- 6. Consideration of student interests.** Teachers should consider their students' interests when planning instruction so that the curriculum is student-centered, which in turn motivates the children to learn.
- 7. Clear criteria.** Students should know what is expected of them for a particular assignment. Depending on the lesson, teachers may use written guidelines such as rubrics for giving specific expectations, give clear guidelines orally, or have students sign a contract acknowledging the expected work.

differentiated instruction approach, teachers have seen continuous improvement in student academic achievement across all racial and socioeconomic groups. End-of-grade assessments given to all students show that the group identified as academically gifted is showing growth, although not as much as the rest of the population. Students identified as having exceptional needs are showing the greatest growth.

Not only has achievement increased, but an analysis of discipline

reports that are submitted to the central office each month shows a drop in referrals. In 1998, the school created a behavior management plan and hired an in-school suspension teacher assistant. Three years later, that position was changed to teacher assistant. The climate of the school had changed. Also, fewer students are being held back. In 2004-05, no 3rd-, 4th-, or 5th-grade students were retained. But the largest benefit has been students' excitement and enthusiasm for learning. Students' reactions

## RESOURCES

- *The Schoolwide Enrichment Model: A How-To Guide for Educational Excellence*, 2nd edition, by Joseph S. Renzulli and Sally Reis. Port Chester, NY: National Professional Resources, 1997.
- *How to Differentiate Instruction in Mixed-Ability Classrooms*, 2nd edition, by Carol Ann Tomlinson. Alexandria, VA: ASCD, 2001.
- *The Differentiated Classroom: Responding to the Needs of All Learners*, by Carol Ann Tomlinson. Alexandria, VA: ASCD, 1999.
- *Teaching Gifted Kids in the Regular Classroom: Strategies and Techniques Every Teacher Can Use to Meet the Needs of the Gifted and Talented*, by Susan Winebrenner and Pamela Espeland. Minneapolis, MN: Free Spirit Publishing, 2000. Note: Although this book says "gifted," it is wonderful for all teachers and students.
- A free, online course developed from the work of North Topsail is available at [www.CAtraining.com](http://www.CAtraining.com), titled "Differentiated Instruction: Success for Every Student." It includes lesson plans, handouts, and video interviews with North Topsail faculty.

are in part because teachers enjoy their work more when they facilitate rather than lecture.

Several of North Topsail's educators have been named Teacher of the Year in Pender County, and the principal was named Pender County's Principal of the Year for 2002-03. Staff have been asked to conduct professional development in differentiated instruction for all of Pender County's incoming teachers, and some have been asked to provide professional learning at county-designated staff development days for other schools, as well as at local and state level conferences. Teachers from other schools frequently visit to learn about differentiated instruction. Staff have written articles and an online course for differentiating instruction.

## CONCLUSION

With many demands on teachers today, whole-group and one-size-fits-all teaching is prevalent in schools.

While teachers do and should use whole-group instruction, teaching to the whole group without using any other instructional method will not address the needs of all learners. The benefits of implementing differentiated instruction far outweigh any pitfalls. The academic progress the practice was designed to produce has been demonstrated at North Topsail by the constant rise in student achievement.

"Even though it takes a lot of time upfront to plan for a differentiated classroom, the benefits have been proven," said teacher Patricia Holliday. "Each year that I get better at planning for differentiation, I can see an improvement in the outcomes of my students."

## REFERENCE

**Tomlinson, C.A. (2001).** *How to differentiate instruction in mixed-ability classrooms (2nd ed.)*. Alexandria, VA: ASCD. ■